



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,195	04/17/2006	Naoki Hayashida	288805US0PCT	8714
22850	7590	04/13/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
BERMAN, SUSAN W				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
04/13/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

Office Action Summary

Application No.

10/576,195

Applicant(s)

HAYASHIDA ET AL.

Examiner

/Susan W. Berman/

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9-19-08, 12-30-08, 2-11-09, and 3-11-09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9-19-08, 3-11-09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

The abstract of the disclosure filed 12-30-2008 obviates the objection set forth in the Office Action mailed 7-30-2008.

The objection to the disclosure set forth in the Office Action mailed 7-30-2008 is withdrawn in response to the amendments filed 12-30-2008.

The rejection of claims 1 and 4-7 under 35 U.S.C. 102(b) as being anticipated by EP 0 807 136 B1 is withdrawn. EP '136 discloses radiation curable compositions comprising fluorinated urethane oligomers based on fluorinated polyethers endcapped with ethylenically unsaturated groups. See paragraphs [0009] and [0012]. However, the diluent monomers taught by EP '136 are fluorinated acrylates.

The rejection of claims 1 and 4-7 under 35 U.S.C. 102(b) as being anticipated by EP 1 057 849 A2 is withdrawn. See the Abstract, Paragraphs [0009], [0010], [0022] and Examples 1-5. Preparation of the (meth)acrylate capped fluorinated polyethers by reaction of a polyether polyol and an isocyanate (meth)acrylate-functional compound is disclosed in the examples.

The rejection of claims 1 and 4-7 under 35 U.S.C. 102(b) as being anticipated by Turri (6,376,572) is withdrawn. Turri discloses analogous compositions comprising an acrylated perfluoropolyether containing urethane bonds and derived from a fluoropolyether diol. From 0 to 30 % by weight non-fluorinated (meth)acrylates or fluorinated (meth)acrylates can be added.

Response to Arguments

Applicant's arguments filed 12-30-2008 have been fully considered but they are not persuasive.

With respect to WO 03/002628, applicant argues that the polymers disclosed are obtained by reaction of HMDI-isocyanurate trisocyanate with PFPE-CH₂OH and hydroxyethyl acrylate. Applicant further argues that the polymer has three main chains and that the PFPE is positioned at the one terminal of the three main chains. It is agreed that W '628 teaches a triisocyanate prepared by trimerizing a diisocyanate. See paragraph [0021]. The perfluoropolyether disclosed can have two terminal -OH groups for reaction with the triisocyanate, thus forming urethane groups and terminal isocyanate groups by reaction with the triisocyanate. The remaining two isocyanate groups are available for reaction with compound B-2 to provide two to four terminal (meth)acrylate functional groups.

Applicant argues that the instantly claimed hardcoat composition is effective in forming a hardcoat layer having excellent anti-fouling properties and lubricating properties as well as scratch resistance and wear resistance. Itoh et al teach hard coat compositions providing a hard coat layer with excellent anti-staining properties and lubricity as well as superior scratch and abrasion resistance. The comparative data in the specification has been considered with respect to the disclosure of Itoh et al. It is noted that the examples according to the invention evidence an improvement in contact angle after wiping with a solvent-permeated waste cloth when a combination of 48 pbw hexa-acrylate and 12 pbw diacrylate are used as curable compounds (B). However, none of the instant claims is commensurate in scope with this showing of unexpected results.

The rejection of claims under 35 U.S.C. 103(a) as being unpatentable over Eriyama et al (6,160,067) in combination with WO 03/002628, as disclosed in US 2004/181008, is withdrawn in order to simplify the issues.

The rejection of claims under 35 U.S.C. 103(a) as being unpatentable over Eriyama et al (6,160,067) in combination with Turri (6,376,572) is withdrawn in order to simplify the issues.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 03/002628, as disclosed in US 2004/181008. With respect to claims 1 and 4, WO '628 discloses compositions comprising 0.2 to 2% fluorine-containing polymer containing urethane bond and two acrylate groups. WO '628 also teaches compositions comprising 69% dipentaerythritol hexaacrylate and 31% triethyleneglycol diacrylate. With respect to claims 6-7, see Application Examples 1-4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (7,074,472) in view of Turri (6,376,572) or WO '628. Itoh et al disclose the invention as claimed except for teaching that the fluorine-containing polyether can be a fluoropolyether having a urethane bond. Turri discloses compositions comprising an acrylated perfluoropolyether containing urethane bonds and derived from a fluoropolyether diol in compositions with (meth)acrylate monomers and a photoinitiator. WO '628 discloses analogous compositions comprising a perfluoropolyether having acrylate functional groups that can also contain urethane bonds. See the discussion of the disclosure of WO '628 hereinabove.

It would have been obvious to one skilled in the art at the time of the invention to substitute the urethane bond containing perfluoropolyether acrylates disclosed by Turri or WO '628 in analogous compositions for the perfluoropolyether acrylates in the compositions disclosed and claimed by Itoh et al. Turri provides motivation by teaching that the acrylated perfluoropolyethers containing urethane bonds are equivalent to acrylated polyfluoropolyethers for providing good surface pick-up properties, hardness, abrasion resistance and chemical resistance to coating compositions. WO '628 provides motivation by teaching compositions for surface-treating. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of successfully providing a hardcoat composition, as claimed by US '472, incorporating the properties of urethanated perfluoropolyethers taught by Turri or WO '628 as well as the properties taught by Itoh et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37

CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4 and 6-12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 7,074,472 in view of Turri (6,376,572) or WO '628. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons. The difference is that the claims of '472 recite a fluorine-containing polyether but do not recite a fluoropolyether having a urethane bond. Turri and WO '628 each discloses compositions comprising a perfluoropolyether having acrylate functional groups that can also contain urethane bonds. It would have been obvious to one skilled in the art at the time of the invention to substitute the urethane bond containing perfluoropolyether acrylates disclosed by Turri or WO '628 in analogous compositions for the perfluoropolyether acrylates in the compositions claimed by '472. Turri provides motivation by teaching that the acrylated perfluoropolyethers containing urethane bonds are equivalent for providing good surface pick-up properties, hardness, abrasion resistance and chemical resistance to coating compositions. WO '628 provides motivation by teaching that the perfluoropolyethers are useful for surface-treating compositions. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of successfully providing a hardcoat composition, as claimed by US '472, incorporating the properties of urethanated perfluoropolyethers taught by WO '628 or Turri, as well as the properties taught by Itoh et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
4/7/2009

/Susan W Berman/
Primary Examiner
Art Unit 1796